SECTION 14(c) ONLINE CALCULATORS USER GUIDE



WAGE AND HOUR DIVISION

UNITED STATES DEPARTMENT OF LABOR

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INTRODUCTION: THE SECTION 14(c) ONLINE CALCULATORS

Section 14(c) of the Fair Labor Standards Act (FLSA) has contained provisions permitting employers to employ workers with disabilities at subminimum wages pursuant to special certificates issued by the U.S. Department of Labor since the statute was enacted in 1938. For purposes of Section 14(c), a subminimum wage is a wage paid to a worker with a disability that is commensurate with that worker's individual productivity as compared to the wage and productivity of experienced workers who do not have disabilities performing essentially the same type, quality, and quantity of work in the vicinity where the worker with a disability is employed. The commensurate wage is always a wage below what is required by Section 6(a)(1) of the FLSA or below the rate required by the Service Contract Act (SCA) wage determination where applicable. Before paying a subminimum wage, employers must obtain an authorizing certificate from the Wage and Hour Division (WHD) of the U.S. Department of Labor.

Thirteen online calculators are available to assist with the calculation of prevailing wages, commensurate hourly wages, and piece rates as required to meet the statutory and regulatory provisions of Section 14(c). These calculators are meant as compliance assistance tools and do not change the Section 14(c) regulations or any certification requirements. **This** user guide provides guidance on the use and functions of the Section 14(c) online calculators, which are available at www.dol.gov/whd/sec14c/calculators.

LEGAL NOTICE

Employers may use the online calculators when completing forms WH-226 and WH-226A to apply for certification and when making calculations to determine the required wage rates on an existing certificate. While Section 14(c) certificate holders are not required to use these online calculators, they are encouraged to do so to ensure the accuracy of their calculated rates.

The Department of Labor (the Department) is providing these online calculators and this user guide as a public service. The regulations and related materials reflected in these calculators and this guide are intended to facilitate compliance with Section 14(c) and Department of Labor regulations. Neither these calculators, nor this guide, however, offer assistance in determining whether the criteria for Section 14(c) coverage are satisfied and the calculators may not be an appropriate tool for determining Section 14(c) wages in every possible situation encountered in the workplace.

The online calculators and this guide provide a service that is continually under development. Users should be aware that, while the Department endeavors to keep the information timely and accurate, there will often be a delay between official publication of new guidance or authority and their appearance in or modification of the calculators and this guide. Employers remain independently responsible for determining whether their wages are in compliance with federal law.

Further, the conclusions reached by the online calculators rely on the accuracy of the data provided by the user. Therefore, the Department makes no express or implied guarantees. This user guide does not attempt to comprehensively address all of the substantive rights and responsibilities that apply to covered entities under Section 14(c). The Federal Register and the Code of Federal Regulations remain the official sources for regulatory information published by the Department. The Department will make every effort to correct errors brought to its attention.

If you have any questions about the Section 14(c) Online Calculators, or if you wish to report a problem you encounter when using the calculators, please send an email to WHD at **WHDPublic@dol.gov**.

IMPORTANT CALCULATOR INFORMATION

CORRECT ROUNDING

Section 14(c) requires that workers who have disabilities for the work being performed and who receive subminimum wages must receive **at least** the commensurate wage for all hours worked. An employer who follows the normal business rules of rounding - rounding "up" only when the last decimal place is a five or higher - may actually be underpaying workers with disabilities. Although the underpayment would be very small, the eventual back wage liability could be quite large considering the number of workers employed by an employer over an extended period of time. Underpayment can be avoided by always rounding up.

The Wage and Hour Division accepts the practice of carrying out computations to the fifth decimal place and then rounding up to the fourth decimal place when computing special minimum wages due workers with disabilities under a Section 14(c) certificate. An employer may, of course, round up sooner than the fifth decimal point. **The Section 14(c) Online Calculators are programmed to correctly round computations.**

PRINT FUNCTION

The online calculators do not allow for the saving of entered data. If you navigate away from a page, any data that you have entered will be lost.

However, each calculator has a button at the bottom of the page. Once you have entered all required data and completed the desired calculation, you can click "Print" and a new window will appear with a print-compatible view of the calculator. From this window you can choose to print to your local printer or you may be able to save the document as a PDF. Although you are not able to go back and change any data at this point, saving the document as a PDF will allow you to keep electronic records, if preferred.

FORMATTING WAGE DATA

When using the calculators, there are several cells that require you to input wage data. There is not a required format for wage data. For example, you could input \$12, \$12.00, 12, or 12.00. Any of these formats will be recognized by the calculators.

TIME ELAPSED CELLS

When entering time study data, there are several sections that require you to input the amount of time elapsed. The calculators are formatted to allow you to enter the number of hours, minutes and/or seconds it took for the individual to complete the time study. All time is converted to seconds for calculation purposes within all calculators, which means that any format of the same amount of time will result in the same total time elapsed. In the example below, one hour, sixty minutes and 3,600 seconds all result in the same "Total".

Time Elapsed			
Hours	Minutes	Seconds	Total
1			3600

Time Elapsed			
Hours	Minutes	Seconds	Total
	60		3600

Time Elapsed			
Tota	Seconds	Minutes	Hours
3600	3600		
30	3000		

PREVAILING WAGE CALCULATORS

Employers who wish to pay subminimum wages to a worker with disabilities pursuant to Section 14(c) of the FLSA are required to conduct a prevailing wage survey prior to paying the subminimum wages. Determining the prevailing wage is the first step toward establishing the correct commensurate wage. A prevailing wage survey must be completed at least once a year or more frequently when a change in the prevailing wage has most likely occurred (such as when the federal minimum wage has increased under FLSA Section 6(a)(1)). See section 525.10(b) of the Section 14(c) regulations and Chapter 64g03(g) of the WHD Field Operations Handbook for exceptions to the Prevailing Wage Surveys.

To conduct a survey, the employer must obtain wage data for each job classification being performed by workers who will be paid a subminimum wage. The wage data should be collected from a representative sample of comparable businesses in the vicinity that primarily employ workers who do not have disabilities performing the same work and utilizing similar methods and equipment as used by the worker with a disability. The number of employers surveyed will depend on the number of firms doing similar work, but normally should include no less than three.

An employer should solicit prevailing wage information, preferably in writing, and should record the following information regarding each prevailing wage survey contact:

- 1. a brief description of the work for which wage information was collected;
- 2. name, address and phone number of firm;
- 3. name and title of individual(s) contacted;
- 4. date of contact:
- 5. the experienced wage rate; and
- 6. the basis for concluding that the wage rate submitted was not based upon an entry level position (for example, requesting the entry level worker wage for the specific job classification).

Note: To use the "Weighted Average" calculator, you must collect the wage data <u>and</u> the number of employees employed within the specific job classification during the prevailing wage survey.

Two prevailing wage calculators were developed to reflect the different mathematical methods to determine a prevailing wage once all wage data has been collected. Both calculators are formatted to collect much of the same information requested in *WH-226: Application for Authority to Employ Workers with Disabilities at Special Minimum Wages* and reflect the requirements of section 525.10(g) of the Section 14(c) regulations.

"Straight or Simple Average" calculates the prevailing wage by determining the average wage paid by the employers surveyed.

<u>"Weighted Average"</u> calculates the prevailing wage by taking into account the number of employees employed by each employer surveyed.

"STRAIGHT OR SIMPLE AVERAGE"

As a reminder, the following information should be collected from each surveyed employer during a prevailing wage survey:

- 1. a brief description of the work for which wage information was collected;
- 2. name, address and phone number of firm;
- 3. name and title of individual(s) contacted;
- 4. date of contact;
- 5. the experienced wage rate; and
- 6. the basis for concluding that the wage rate submitted was not based upon an entry level position (for example, requesting the entry level worker wage for the specific job classification).

The above information should be entered into the calculator as described:

1.	Description of Work (e.g., Collating, Hand Assembly, Janitorial)

2.

A brief description of work for which wage information was collected should be entered in the "Description of Work" cell.

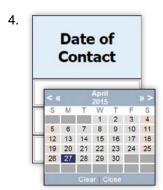
Name of Employer	Employer Address	Employer Phone Number
1.		
2.		
3.		
Add more records		

The name, address and phone number of the firms contacted should be entered in the "Name of Employer," "Employer Address" and "Employer Phone Number" cells.

If you contact more than three firms, you can click "Add more records" for each additional firm and a new identical row will appear.

3.	Individual Contacted	Individual's Job Title

The individual contacted within each firm and the job title of that individual should be entered in the "Individual Contacted" and "Individual's Job Title" cells.



The date each firm was contacted should be entered in the "Date of Contact" cell. An auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

5.	Entry Level Wage	Experienced Worker Wage

The experienced worker wage rate collected from each firm should be entered in the "Experienced Worker Wage" cell.

The basis for concluding that the "Experienced Worker Wage" was not based upon an entry level position can be met by requesting the entry level worker wage for the specific job classification from the firm surveyed. This entry level wage should be entered in the "Entry Level Wage" cell.

The difference between the "Entry Level Wage" and the "Experienced Worker Wage" should typically reflect at least one pay raise (such as, after completion of a probationary or training period).

Note: If the employer surveyed provides any other basis for concluding that the experienced worker wage was not based upon an entry level position, the "Entry Level Wage" cell should be left blank and the reason/basis provided should be documented and kept as a record to support the experienced worker wage used.

HOW IT CALCULATES: STRAIGHT OR SIMPLE AVERAGE

This calculator will determine the average prevailing wage on a "straight or simple average" basis by adding the prevailing wages collected by a prevailing wage survey and dividing by the number of employers surveyed. Once all data is entered as described above, click "Calculate".

Wage
Calculate
\$ 12.55

(Sum of "Experienced Worker Wages") : Number of Employers Surveyed = "Prevailing Wage"

 $(12.50 + 13.20 + 11.95) \div 3$

= 12.55

Prevailing Wage = \$12.55

"WEIGHTED AVERAGE"

As a reminder, the following information should be collected from each surveyed employer during a prevailing wage survey:

- 1. a brief description of the work for which wage information was collected;
- 2. name, address and phone number of firm;
- 3. name and title of individual(s) contacted;
- 4. date of contact;
- 5. the number of employees employed within the specific job classification;
- 6. the experienced wage rate; and
- 7. the basis for concluding that the wage rate submitted was not based upon an entry level position (for example, requesting the entry level worker wage for the specific job classification).

Note: To use the "Weighted Average" calculator, you must collect the wage data <u>and</u> the number of employees employed within the specific job classification from each employer during the prevailing wage survey.

The above information should be entered into the calculator as described:

Description of Work (e.g., Collating, Hand Assembly, Janitorial)

A brief description of work for which wage information was collected should be entered in the "Description of Work" cell.

Name of Employer Employer Address Employer Phone Number

1. 2. 3.

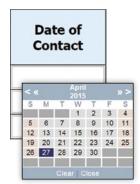
Add more records

The name, address and phone number of the firms contacted should be entered in the "Name of Employer," "Employer Address" and "Employer Phone Number" cells.

If you contact more than three firms, you can click "Add more records" for each additional firm and a new identical row will appear.

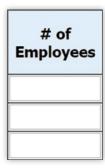
Individual Contacted Individual's Job Title

The individual contacted within each firm and the job title of that individual should be entered in the "Individual Contacted" and "Individual's Job Title" cells.



The date each firm was contacted should be entered in the "Date of Contact" cell. An auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

5.



The number of workers within the specific job classification for each firm should be entered in the "# of Employees" cell.

6.

Entry Level Wage	Experienced Worker Wage

The wage rate information provided for each firm should be entered in the "Experienced Worker Wage" cell.

The basis for concluding that the "Experienced Worker Wage" was not based upon an entry level position can be met by requesting the entry level worker wage for the specific job classification from the firm surveyed. This entry level wage should be entered in the "Entry Level Wage" cell.

The difference between the "Entry Level Wage" and the "Experienced Worker Wage" should typically reflect at least one pay raise (such as, after completion of a probationary or training period).

Note: If the employer surveyed provides any other basis for concluding that the experienced worker wage was not based upon an entry level position, the "Entry Level Wage" cell should be left blank and the reason/basis provided should be documented and kept as a record to support the experienced worker wage used.

HOW IT CALCULATES: WEIGHTED AVERAGE

This calculator will determine the average prevailing wage on a "weighted average" basis by taking into account the number of employees employed by each employer surveyed in a prevailing wage survey. The reported experienced worker wage is multiplied by the number of employees employed for each employer surveyed. The sum of those wages is then divided by the total number of employees employed by all employers surveyed. Once all data is entered as described above, click "Calculate".

# of Employees	Entry Level Wage	Experienced Worker Wage	Prevailing Wage
53		12.50	
41		13.20	Calculate
64		11.95	\$ 12.46

(Sum of ["# of Employees" x "Experienced Worker Wage"]) ÷ (Sum of "# of Employees")

Sum of ["# of Employees" x "Experienced Worker Wage"]

 $53 \times 12.50 = 662.50$

 $41 \times 13.20 =$ **541.20**

 $64 \times 11.95 = 764.80$

Sum = 1,968.50

Sum of "# of Employees"

53 + 41 + 64

= 158

(Sum of ["# of Employees" × "Experienced Worker Wage"]) ÷ (Sum of "# of Employees") = "Prevailing Wage"

 $1,968.50 \div 158$

= 12.45886

Prevailing Wage = \$12.46

COMMENSURATE HOURLY WAGE CALCULATORS

A commensurate wage, for purposes of Section 14(c), is a subminimum wage paid to a worker with a disability that is based on his or her individual productivity in proportion to the established prevailing wage rate for the job being performed.

Employers must periodically evaluate the on-the-job productivity—in terms of quantity of production and quality of production—of each worker who receives subminimum wages on an hourly basis. The productivity of each such worker must be measured within the first month of employment and, at a minimum, once every six months thereafter. Evaluations must also occur when there is a perceptible change in the worker's productivity or when the duties or conditions of the job change. In addition to the productivity data, each review should contain, at a minimum, the name of the worker with a disability being reviewed, the date of the review, and the name and position of the individual doing the review. If an adjustment is required, the new commensurate wage rate must be reflected in the first pay period following the review.

Five commensurate hourly wage calculators were developed to reflect the different mathematical methods to determine a commensurate wage. The calculators are formatted to collect much of the same information required in section <u>525.12(j)</u> of the Section 14(c) regulations.

"Rework" uses time studies to compare the productivity of the standard setter and the worker with a disability. The time studies allow for time (rework) to correct any mistakes made during the evaluation.

<u>"Weighted Tasks, Standard Weight Factor"</u> calculates the "weight factor" by finding the ratio of time spent by the standard setter in each individual task to the time spent by the standard setter in performance of the total job. The weight factor is used to "weight" the task productivity of the worker with a disability.

<u>"Weighted Tasks, Ww/D Weight Factor"</u> calculates the "weight factor" by finding the ratio of time spent by the worker with a disability in each individual task to the time spent by the worker with a disability in performance of the total job. The weight factor is used to "weight" the task productivity of the worker with a disability.

<u>"90/10 Form, Single Task, Variable Time"</u> requires a set task, with a varying amount of time spent completing the task. A 90 percent rating factor is assigned to the quantity of work performed and a 10 percent rating factor is assigned to the quality of the work performed.

<u>"90/10 Form, Fixed Time, Variable Units"</u> requires a set amount of time, with a varying number of units being completed. A 90 percent rating factor is assigned to the quantity of work performed and a 10 percent rating factor is assigned to the quality of the work performed.

"REWORK"

This calculator compares the total amount of time it takes for the standard setter to complete a task and meet the established minimum acceptable quality and quantity standards to the total amount of time it takes for the worker whose productivity is being tested to meet the established minimum acceptable quality and quantity standards.

Time of Standard Setter

The employer first conducts time studies of the standard setter (a worker who does not have a disability for the work being performed).

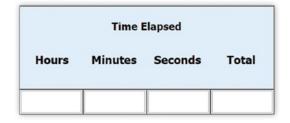
1.



The type of work, the date the time study is conducted, the name of the individual who conducts the time study, and the name of the standard setter should be entered in the "Job Tasks," "Date," "Observer," and "Standard Setter" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

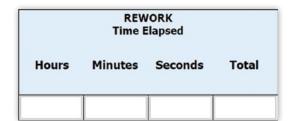
If multiple tasks are required within one time study, you can click "Add New Task" for each additional task and a new identical row will appear.

2.



The observer starts the clock for the standard setter. When the worker indicates that he or she has satisfactorily completed the work, the clock is then stopped and the time is entered in the "Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

3. The work product is examined by the observer to ensure that the worker has met the established minimum acceptable quality and quantity standards. If the minimum acceptable standards have been met, the "Rework: Time Elapsed" columns are left empty. If any of the minimum acceptable standards are not met, the clock will again be restarted while the worker corrects or completes the work product to where it meets the minimum acceptable standards. The clock is then stopped and the time is entered in the "Rework Time Elapsed" cells. The "Total" column automatically converts the time into seconds.



	Mark Mark				Time Elapsed				REWORK Time Elapsed			
Time Study	Job Tasks	Date	Observer	Standard Setter	Hours	Minutes	Seconds	Total	Hours	Minutes	Seconds	Total
÷1.	■ Add New Task											
Time Study	Job Tasks	Date	Observer	Standard Setter	Hours	Time I	Seconds	Total	Hours		ORK Elapsed Seconds	Total
#2.	■ Add New Task											
Time Study	Job Tasks	Date	Observer	Standard Setter	Hours	Time I	Elapsed	Total	Hours		ORK Elapsed Seconds	Total
÷3.	☐ Add New Task											

Repeat steps 1. - 3. for the remaining standard setter time studies. The Department requires that you complete at least three time studies. See Chapter 64j00 of the WHD Field Operations Handbook.

If you conducted more than three time studies, you can click "Add New Time Study" for each additional time study and a new identical row will appear.

Note: For an accurate calculation from this calculator, you must enter the same number of time studies for both the standard setter and the worker with a disability.

Time of Worker with a Disability

The employer next conducts time studies of the worker with a disability (a worker who has a disability for the work being performed).

5.



The type of work, the date the time study is conducted, the name of the individual who conducts the time study, and the name of the worker who performs the time study should be entered in the "Job Tasks," "Date," "Observer" and "Worker with a Disability" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

If multiple tasks are required within one time study, you can click "Add New Task" for each additional task and a new identical row will appear.

	Time E	lapsed	
Hours	Minutes	Seconds	Total

The observer starts the clock for the worker being evaluated. When the worker indicates that he or she has satisfactorily completed the work, the clock is then stopped and the time is entered in the "Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

7. The work product is examined by the observer to ensure that the worker has met the established minimum acceptable quality and quantity standards. If the minimum acceptable standards have been met, the "Rework: Time Elapsed" columns are left empty. If any of the minimum acceptable standards are not met, the clock will again be restarted while the worker corrects or completes the work product to where it meets the minimum acceptable standards. The clock is then stopped and the time is input in the "Rework Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

REWORK Time Elapsed							
Hours	Minutes	Seconds	Total				

8.

Time				Time Elapsed					REWORK Time Elapsed			
Study	Job Tasks	Date	Observer	Worker with a Disability	Hours	Minutes	Seconds	Total	Hours	Minutes	Seconds	Total
1.	Add New Task											
Time Study	Job Tasks	Date	Observer	Worker with a Disability	Hours	Time I	Seconds	Total	Hours	Time I	ORK Elapsed Seconds	Total
2.	Add New Task											
Time Study	Job Tasks	Date	Observer	Worker with a Disability	Hours	Time I	Seconds	Total	Hours		ORK Elapsed Seconds	Total
3.	■ Add New Task											

Repeat steps 5. - 7. for the remaining studies of a worker with a disability. If you conducted more than three time studies, you can click "Add New Time Study" for each additional time study and a new identical row will appear.

Note: For an accurate calculation from this calculator, you must enter the same number of time studies for both the standard setter and the worker with a disability.

Job Productivity	
Prevailing Wage	Calculate
Commensurate Wage	

The "Job Productivity" cell will auto populate once data has been input in the calculator. You should input the established prevailing wage in the "Prevailing Wage" cell and click "Calculate".

HOW IT CALCULATES: REWORK

This calculator will determine the commensurate hourly wage for you by multiplying "Job Productivity" of the worker being evaluated by the established prevailing wage. The "Job Productivity" cell, which is calculated by dividing the standard setter "Total Time" by the worker with a disability "Total Time", will auto populate once data has been input in the calculator. Once job productivity has calculated, you should input the established prevailing wage in the "Prevailing Wage" cell and click "Calculate".

	Task		ORK Elapsed				Elapsed	Time E	
Tota	Time Total	Total	Seconds	Minutes	Hours	Total	Seconds	Minutes	Hours
	1394	291	51	4		1103	23	18	
4775	Task Time Total	Total	ORK Elapsed Seconds		Hours	Total	Elapsed	Time E	Hours
	1616	131	11	2		1485	45	24	
	Task Time Total	Total	REWORK Time Elapsed Hours Minutes Seconds Total			Total	Elapsed Seconds	Time E	Hours
	1765	329	29	5		1436	56	23	

Sum of "Task Time Total" = Standard Setter "Total Time" 1394 + 1616 + 1765= 4775

	Time	Elapsed		REWORK Time Elapsed					Time Elapsed			Task	Tota
Hours	Minutes	Seconds	Total	Hours	Minutes	Seconds	Total	Time Total	Time				
	39	25	2365		7	23	443	2808					
Hours	Time I	Elapsed Seconds	Total	Hours		VORK Elapsed Seconds	Total	Task Time Total	8017				
	33	3	1983		8	52	532	2515					
Hours	Time I	Elapsed Seconds	Total	REWORK Time Elapsed Hours Minutes Seconds Total				Task Time Total					
			_	_	7		1	_	ll .				

Sum of "Task Time Total" = Worker "Total Time" 2808 + 2515 + 2694 = 8017

956
Calculate
31

Standard Setter "Total Time" ÷ Worker "Total Time" = "Job Productivity" $4775 \div 8017$ = 0.5956

"Job Productivity" x "Prevailing Wage" = "Commensurate Wage" 0.5956×9.75 = 5.8071 Commensurate Wage = \$5.81

"WEIGHTED TASKS"

Many hourly paid jobs are composed of dissimilar tasks. The weighted task calculators should be used if the employer wishes to evaluate an employee based on the proportion of time spent on each task ("weight factor").

Two weighted task calculators have been developed - Weighted Tasks, Standard Weight Factor and Weighted Tasks, Worker with a Disability (Ww/D) Weight Factor. Both calculators require the same data input and the instructions to fill them in are the same.

After reviewing the instructions, you will be able to jump to the "How it Calculates" section for the weighted task calculator you have chosen to use.

Getting Started

Add Major Job Component

The employer first must identify the number of major job components that make up the entire task for which the worker is being evaluated. Click the "Add Major Job Component", located under the "Major Job Component" cell, until you have the appropriate number of job components.



The name of the individual who conducts the time study, the name of the worker being evaluated, and the date the time studies are conducted should be entered in the "Observer," "Worker" and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

Time of Standard Setter

The employer first conducts time studies of the standard setter(s) (a worker who does not have a disability for the work being performed).

3.



The job component and the name of the standard setter for each time study conducted should be entered in the "Major Job Component" and "Standard Setter" cells.

The observer starts the clock for the standard setter. When the worker indicates that he or she has satisfactorily completed the work, the clock is then stopped and the time is entered in the "Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

5. The work product is examined by the observer to ensure that the worker has met the established minimum acceptable quality and quantity standards. If the minimum acceptable standards have been met, the "Rework: Time Elapsed" columns are left empty. If any of the minimum acceptable standards are not met, the clock will again be restarted while the worker corrects or completes the work product to where it meets the minimum acceptable standards. The clock is then stopped and the time is entered in the "Rework Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

REWORK Time Elapsed								
Hours	Minutes	Seconds	Total					

6.

	Time	Elapsed	REWORK Time Elapsed						
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total		
1.	19	23	1163		7	4	424		
2.	24	51	1491		5	33	333		
3.	28	15	1695		6	12	372		

Repeat steps 4. & 5. for the remaining standard setter time studies.

The Department requires that you complete at least three time studies. See <u>Chapter 64j00</u> of the WHD Field Operations Handbook. If you perform more than three time studies, you can click "Add more records" for each additional time study under "Standard Setter" and a new identical row will appear.

Note: For an accurate calculation from this calculator, you must enter the same number of time studies for both the standard setter and the worker with a disability.

	Time	Elapsed	REWORK Time Elapsed					
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	
1.	19	23	1163		7	4	424	
2.	24	51	1491		5	33	333	
3.	28	15	1695		6	12	372	

	Time I	Elapsed	REWORK Time Elapsed					
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	
1.	11	42	702					
2.	15	25	925		4	42	282	
3.	16	11	971					

	Time I	Elapsed	REWORK Time Elapsed					
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	
1.	21	4	1264		3	21	201	
2.	17	14	1034					
3.	22	6	1326		2	12	132	

Repeat steps 4. - 6. for the remaining job components.

Note: For an accurate calculation from this calculator, you must enter the same number of time studies within each job component for both the standard setter and the worker with a disability.

Time of Worker with a Disability

The employer next conducts time studies of the worker with a disability (a worker who has a disability for the work being performed).

8.

	Time Elapsed											
Hours	Minutes	Seconds	Total									

The observer starts the clock for the worker being evaluated. When the worker indicates that he or she has satisfactorily completed the work, the clock is then stopped and the time is entered in the "Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

9. The work product is examined by the observer to ensure that the worker has met the established minimum acceptable quality and quantity standards. If the minimum acceptable standards have been met, the "Rework: Time Elapsed" columns are left empty. If any of the minimum acceptable standards are not met, the clock will again be restarted while the worker corrects or completes the work product to where it meets the minimum acceptable standards. The clock is then stopped and the time is entered in the "Rework Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

REWORK Time Elapsed										
Hours	Minutes	Seconds	Total							

	Time	Elapsed	REWORK Time Elapsed					
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	
1.	32	51	1971		4	12	252	
2.	29	25	1765		6	32	392	
3.	36	2	2162		3	54	234	

Repeat steps 8. & 9. for the remaining worker time studies.

If you perform more than three time studies, you can click "Add more records" for each additional time study under "Standard Setter" and a new identical row will appear.

Note: For an accurate calculation from this calculator, you must enter the same number of time studies for both the standard setter and the worker with a disability.

11.

	Time I	Elapsed				WORK Elapsed		Total in	Ww/D
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconds	Total Time
1.	32	51	1971		4	12	252	2223	
2.	29	25	1765		6	32	392	2157	
3.	36	2	2162		3	54	234	2396	6776
Worker	with Disabi	lity (Ww/	(D)						
		Elapsed			REWORK Time Elapsed			Total in	Ww/D
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconds	Time
1.	25	12	1512		6	43	403	1915	
2.	27	34	1654		4	11	251	1905	6030
3.	29	22	1762		7	28	448	2210	
Worker	with Disabi	lity (Ww/	D)						
	Time I	Elapsed				WORK Elapsed		Total in	Ww/D
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconde	Total Time
	36	6	2166		5	25	325	2491	
1.		32	2012		7	11	431	2443	
2.	33	32	2012				101	2773	7173

Repeat steps 8. - 10. for the remaining job components.

Note: For an accurate calculation from this calculator, you must enter the same number of time studies within each job component for both the standard setter and the worker with a disability.

Job Productivity	
Prevailing Wage	Calculate
Commensurate Wage	

The "Job Productivity" cell will auto populate once data has been input in the calculator. You should input the established prevailing wage in the "Prevailing Wage" cell and click "Calculate".

JUMP TO:

HOW IT CALCULATES: STANDARD SETTER WEIGHT FACTOR

HOW IT CALCULATES: WORKER WITH A DISABILITY WEIGHT FACTOR

HOW IT CALCULATES: STANDARD SETTER WEIGHT FACTOR

This calculator finds the "Standard Weight Factor" by dividing the "Total Time" it took the standard setter to complete each task by the time it took the standard setter to complete the total job. The standard weight factor is then multiplied by the worker with a disability's task productivity to find the worker's weighted task productivity. The sum of the weighted task productivity of all the tasks equals the worker's job productivity. Finally, the worker's job productivity is multiplied by the established prevailing wage to determine the commensurate wage rate.

1. Standard Weight Factor

	Time Elapsed					VORK Elapsed	Total in	Total	Standard	
Hours	Minutes	Seconds	Total	Hours	Minutes	Seconds	Total		Seconds Time	
1.	19	23	1163		7	4	424	1587	11	
2.	24	51	1491		5	33	333	1824	5478	
3.	28	15	1695		6	12	372	2067		0.4449

	Time E	lapsed		REWORK Time Elapsed		Total in Tota		Standard			
Hours	Minutes	Seconds	Total	Hours	Minutes	Seconds	Total	Seconds	Time	Weight Factor	
1.	11	42	702					702			
2.	15	25	925		4	42	282	1207			
3.	16	11	971					971	2880	0.2339	

	Time Elapsed				REWORK Time Elapsed		Total in Tota	Total	Standard	
Hours	Minutes	Seconds	Total	Hours	Minutes	Seconds	Total	Seconds Tin		
1.	21	4	1264		3	21	201	1465		
2.	17	14	1034					1034		
3.	22	6	1326		2	12	132	1458	3957	0.3214

Sum of "Total in Seconds" = Task "Total Time"

1587 + 1824 + 2067 = **5,478**

702 + 1207 + 971 = 2,880

1465 + 1034 + 1458 = 3,957

Sum of Task "Total Time" = Job Total Time

5,478 + 2,880 + 3,957

= 12,315

Task "Total Time" ÷ Job Total Time = "Standard Weight Factor"

 $5,478 \div 12,315 =$ **0.4449**

 $2,880 \div 12,315 = 0.2339$

 $3,957 \div 12,315 =$ **0.3214**

2. Worker with a Disability Task Productivity

											Worker w	ith Disabili	ty (Ww/D)								
Hours	Time E	Seconds	Total	Hours	Time E	ORK Elapsed Seconds	Total	Total in Seconds	Total Time	Standard Weight Factor	Hours	Time E Minutes	lapsed Seconds	Total	Hours	Time I	VORK Elapsed Seconds	Total	Total in Seconds	Ww/D Total Time	Ww/D Task Productivity	Ww/D Weighted Task Productivit
1.	19	23	1163		7	4	424	1587			1.	32	51	1971		4	12	252	2223			
2.	24	51	1491		5	33	333	1824	5478		2.	29	25	1765		6	32	392	2157			
3.	28	15	1695		6	12	372	2067		0.4449	3.	38	2	2162		3	54	234	2396	6776	0.8085	0.3598
											Worker w	ith Disabili	ty (Ww/D)								
Hours	Time E	lapsed Seconds	Total	Hours	Time E	ORK Elapsed Seconds	Total	Total in Seconds	LOCAL	Standard Weight Factor	Hours	Time E	lapsed Seconds	Total	Hours	Time I	ORK Elapsed Seconds	Total	Total in Seconds	Ww/D Total Time	Ww/D Task Productivity	Ww/D Weighted Task Productivit
1.	11	42	702					702			1.	25	12	1512		6	43	403	1915			
2.	15	25	925		4	42	282	1207			2.	27	34	1654		4	11	251	1905	6030		
3.	16	11	971					971	2880	0.2339	3.	29	22	1762		7	28	448	2210		0.4777	0.1118
											Worker w	ith Disabili	ty (Ww/D)								
Hours	Time E	Seconds	Total	Hours	Time E	ORK lapsed Seconds	Total	Total in Seconds	I otai	Standard Weight Factor	Hours	Time E	lapsed	Total	Hours	Time I	ORK Elapsed Seconds	Total	Total in Seconds	Ww/D Total Time	Ww/D Task Productivity	Ww/D Weighted Task Productivit
1.	21	4	1264		3	21	201	1465			1.	36	6	2166		5	25	325	2491			
2.	17	14	1034	_				1034	3057	0.3214	2.	33	32	2012	_	7	11	431	2443	7173	0.5517	0.1774
3.					2	12	132	1458				33	43	2023		3	38	216	2239			

Standard Setter Task "Total Time" ÷ Ww/D Task "Total Time" = "Ww/D Task Productivity"

 $5,478 \div 6,776 =$ **0.8085**

 $2,880 \div 6,030 =$ **0.4777**

 $3,957 \div 7,173 = 0.5517$

3. Worker with a Disability Weighted Task Productivity

Hours Minute 1. 19 2. 24 3. 28 Tim Hours Minute 1. 11	23 51 15 15	Total 1163 1491 1695 Total	Hours	Time E Minutes 7 5 6	VORK lapsed Seconds 4 33 12 VORK lapsed	Total 424 333 372	1587 1824 2067	5478	0.4449	Hours 1. 2. 3. Worker w	32 29 36 ith Disabil		Total 1971 1765 2162	Hours	Minutes 4 6 3	VORK Elapsed Seconds 12 32 54	Total 252 392 234	2223 2157			Ww/D Weighted Task Productivity
2. 24 3. 28 Tim Hours Minute	51 15	1491 1695	Hours	REW Time E	12 /ORK lapsed	333	1824 2067			3.	29 36 ith Disabil	25 2 ity (Ww/D	1765 2162		3	32 54	392	2157	6776	0.8085	0.3598
Tim Hours Minute	15	1695	Hours	REW Time E	12 /ORK lapsed	Total Control	2067			3-1	36 ith Disabil	2 ity (Ww/D	2162		3	54	-		6776	0.8085	0.3598
Tim Hours Minute	ime Elapsed		Hours	REW Time E	ORK Elapsed	372				3-1	ith Disabil	ity (Ww/D					234	2396	0776	0.0053	0.5576
Hours Minute		Total	Hours	Time E	lapsed		Total in			Worker w)		DEM	NOBA					
Hours Minute		Total	Hours	Time E	lapsed		Total in								DEV	MODA					$\overline{}$
					Seconds	Total	Seconds	Total Time	Standard Weight Factor	Hours	Time E Minutes	Seconds	Total	Hours	Time	Elapsed	Total	Total in Seconds	Ww/D Total Time	Ww/D Task Productivity	Ww/D Weighted Task Productivity
The state of the s	42	702					702			1.	25	12	1512		6	43	403	1915			
2. 15	25	925		4	42	282	1207			2.	27	34	1654		4	11	251	1905	6030	Consessor Consessor	2000000000
3. 16	11	971					971	2880	0.2339	3.	29	22	1762		7	28	448	2210		0.4777	0.1118
										Worker w	ith Dicabil	ity (May /D									
Tim	ime Elapsed				/ORK					WOIKEI W		lapsed	,			VORK					Ww/D
Hours Minute		Total	Hours		Seconds	Total	Total in Seconds	Total	Standard Weight Factor	Hours		Seconds	Total	Hours		Elapsed Seconds	Total	Total in Seconds	Ww/D Total Time	Ww/D Task Productivity	Weighted Task Productivity
1. 21	4	1264		3	21	201	1465			1.	36	6	2166		5	25	325	2491			
2. 17	14	1034					1034]		2.	33	32	2012		7	11.	431	2443		200000	
3. 22	6	1326		2	12	132	1458	3957	0.3214	3.	33	43	2023		3	36	216	2239	7173	0.5517	0.1774

"Standard Weight Factor" x "Ww/D Task Productivity" = "Ww/D Weighted Task Productivity"

 $0.4449 \times 0.8085 =$ **0.3598**

 $0.2339 \times 0.4777 =$ **0.1118**

 $0.3214 \times 0.5517 =$ **0.1774**

Sum of "Ww/D Weighted Task Productivity" = "Job Productivity"

0.3598 + 0.1118 + 0.1774

= 0.6490

0.6490	
8.65	Calculate
\$5.62	
	8.65

"Job Productivity" x "Prevailing Wage" = "Commensurate Wage"

 0.6490×8.65

= 5.61385

Commensurate Wage = \$5.62

HOW IT CALCULATES: WORKER WITH A DISABILITY WEIGHT FACTOR

This calculator finds the "Worker with a Disability (Ww/D) Weight Factor" by dividing the "Total Time" it took the worker to complete each task by the time it took the worker to complete the total job. The Ww/D weight factor is multiplied by the worker's task productivity to find the worker's weighted task productivity. The sum of the weighted task productivity of all the tasks equals the worker's job productivity. Finally, the worker's job productivity is multiplied by the established prevailing wage to determine the commensurate wage rate.

1. Worker with a Disability Weight Factor

	Time I	Elapsed				NORK Elapsed		Total in		Ww/D
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconds	Time	Weight Factor
1.	32	51	1971		4	12	252	2223		
2.	29	25	1765		6	32	392	2157		
3.	36	2	2162		3	54	234	2396	6776	0.3392

	Time	Elapsed				WORK Elapsed		Total in		Ww/D
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconds	Time	Weight Factor
1.	25	12	1512		6	43	403	1915		
2.	27	34	1654		4	11	251	1905	6030	
3.	29	22	1762		7	28	448	2210		0.3018

Worker	with Disabi Time I	ility (Ww/ Elapsed	(D)			WORK Elapsed		Total in	Ww/D	Ww/D
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconds	Total	Weight Factor
1.	36	6	2166		5	25	325	2491		
2.	33	32	2012		7	11	431	2443		
3.	33	43	2023		3	36	216	2239	7173	0.3590

Sum of "Total in Seconds" = Task "Ww/D Total Time"

$$1915 + 1905 + 2210 = 6,030$$

Sum of Task "Ww/D Total Time" = Job Total Time

$$6,776 + 6,030 + 7,173$$

$$= 19,979$$

Task "Ww/D Total Time" ÷ Job Total Time = "Ww/D Weight Factor"

$$6,776 \div 19,979 =$$
0.3392

$$6,030 \div 19,979 =$$
0.3018

$$7,173 \div 19,979 = 0.3590$$

2. Worker with a Disability Task Productivity

										Worker w	rith Disabi	lity (Ww/	D)									
Hrs.	Time I	lapsed Secs.	Total	Hrs.		VORK Elapsed Secs.	Total	Total in Seconds		Hrs.	Time I	Elapsed Secs.	Total	Hrs.		VORK Elapsed Secs.	Total	Total in Seconds	Ww/D Total Time	Ww/D Weight Factor	Ww/D Task Productivity	Ww/D Weighted Task Productivi
	19	23	1163		7	4	424	1587		1.	32	51	1971		4	12	252	2223				
	24	51	1491		5	33	333	1824	5478	2.	29	25	1765		6	32	392	2157				
	28	15	1695		6	12	372	2067		3.	36	2	2162	1	3	54	234	2396	6776	0.3392	0.8085	0.2743
Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconds	Time	Hrs.	Mins.	Secs.	Total	Hrs.	Mins.	Secs.	Total	Seconds	Time	Factor	Ww/D Task Productivity	Weighte Task Productiv
	11	42	702					702		1.	25	12	1512		6	43	403	1915	-			
	15	25	925		4	42	282	1207		2.	27	34	1654		4	11	251	1905	6030			
	16	11	971					971	2880	3.	29	22	1762		7	28	448	2210		0.3018	0.4777	0.1442
										Worker w	rith Disabi	lity (Ww./	D)									
Hrs.	Time I	lapsed Secs.	Total			VORK Elapsed		Total in Seconds	Total	Hrs.		Elapsed Secs.	Total			VORK Elapsed		Total in Seconds	Ww/D	Ww/D Weight	Ww/D Task Productivity	Ww/D Weighted Task

Standard Setter Task "Total Time" ÷ Ww/D Task "Total Time" = "Ww/D Task Productivity"

$$5,478 \div 6,776 =$$
0.8085

$$2,880 \div 6,030 =$$
0.4777

$$3,957 \div 7,173 = \mathbf{0.5517}$$

3. Worker with a Disability Weighted Task Productivity

										Worker w	ith Disabi	lity (Ww/	D)									
Hrs.	Time I	Secs.	Total	Hrs.		VORK Elapsed Secs.	Total	Total in Seconds		Hrs.	Time I	Elapsed Secs.	Total	Hrs.		VORK Elapsed Secs.	Total	Total in Seconds	Ww/D Total Time	Ww/D Weight Factor	Ww/D Task Productivity	Ww/D Weighter Task Productivi
	19	23	1163		7	4	424	1587		1.	32	51	1971		4	12	252	2223				
	24	51	1491		5	33	333	1824	5478	2.	29	25	1765		6	32	392	2157				
	28	15	1695		6	12	372	2067		3.	36	2	2162		3	54	234	2396	6776	0.3392	0.8085	0.2743
	Yhua f	lapsed			REV	VORK				Worker w		-	D)	-	REV	VORK						
Hrs.	Mins.	Secs.	Total	Hrs.	Time I	Secs.	Total	Total in Seconds		Hrs.	Mins.	Secs.	Total	Hrs.	Time Mins.	Elapsed Secs.	Total	Total in Seconds	Ww/D Total Time	Ww/D Weight Factor	Ww/D Task Productivity	Ww/E Weighte Task Production
	11	42	702					702		1.	25	12	1512		6	43	403	1915				
	15	25	925		4	42	282	1207	2000	2.	27	34	1654		4	11	251	1905	6030	0.3018	0.4777	0.1442
	16	11	971					971	2880	3.	29	22	1762		7	28	448	2210		0.3018	0.4///	0.1442
				_	DEM	VORK		_		Worker w			D)		nn	VORK		-				
	Time t	Secs.	Total	Hrs.		Elapsed Secs.	Total	Total in Seconds		Hrs.	Time I	Secs.	Total	Hrs.		Elapsed Secs.	Total	Total in Seconds	Ww/D Total Time	Ww/D Weight Factor	Ww/D Task Productivity	Ww/D Weighte Task Productiv
Hrs.														200000	-				100000	STOREGIC		Productiv
Hrs.	la.					21	201	1465		1.	36	6	2166		5	25	325	2491				
Hrs.	21	4	1264	_	3	21	201				- Breeze	20	2042		7	14	404	2442				
Hrs.	21 17 22	14	1264 1034 1326		2	12	132	1034		2.	33	32	2012		7	11	431 216	2443	7173	0.3590	0.5517	0.1981

"Ww/D Weight Factor" x "Ww/D Task Productivity" = "Ww/D Weighted Task Productivity"

 $0.3392 \times 0.8085 =$ **0.2743**

 $0.3018 \times 0.4777 =$ **0.1442**

 $0.3590 \times 0.5517 =$ **0.1981**

Sum of "Ww/D Weighted Task Productivity" = "Job Productivity"

0.2743 + 0.1442 + 0.1981

= 0.6166

Job Productivity	0.6166	
Prevailing Wage	8.65	Calculate
Commensurate Wage	\$5.34	

"Job Productivity" x "Prevailing Wage" = "Commensurate Wage"

 0.6166×8.65

= 5.33359

Commensurate Wage = \$5.34

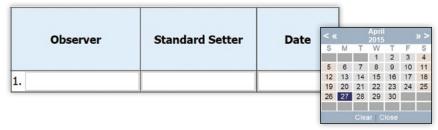
"90/10 FORM, SINGLE TASK, VARIABLE TIME"

The 90/10 calculators assign a 90% rating factor to the quantity of work performed and a 10% rating factor to quality of the work performed by the worker with a disability. This calculator should be utilized when the time studies consist of a single task and a variable amount of time.

Time of Standard Setter

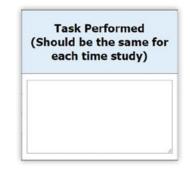
The employer first conducts time studies of the standard setter(s) (a worker who does not have a disability for the work being performed).

1.



The name of the individual who conducts the time study, the name of the standard setter, and the date that the time study is conducted should be entered in the "Observer," "Standard Setter" and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

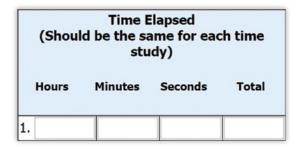
2.



The type of work being performed should be entered in the "Task Performed" cell.

Note: This cell should be the same for each time study completed by both the standard setter and the worker with a disability. You will get an error message when you click "Calculate" if the cells are different.

3.



The observer starts the clock for the standard setter. When the worker indicates that he or she has satisfactorily completed the work, the clock is then stopped and the time is entered in the "Time Elapsed" cells. The "Total" column automatically converts the time into seconds. See Chapter 64j02 of the WHD Field Operations Handbook for guidance on setting the standard using the 90/10 method.

			Task Performed		Time I	lapsed	
Observer	Standard Setter	Date	(Should be the same for each time study)	Hou	rs Minutes	Seconds	Total
				1.			
				2.			
				3.			
■ Add more records							

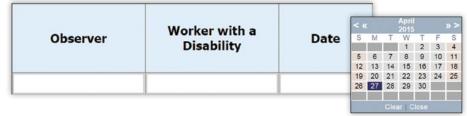
Repeat steps 1. & 3. for the remaining standard setter time studies.

The Department requires that you complete at least three time studies. See <u>Chapter 64j00</u> of the WHD Field Operations Handbook. If you perform more than three time studies, you can click "Add more records" for each additional time study and a new identical row will appear.

Time of Worker with a Disability

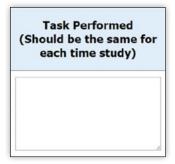
The employer next conducts time studies of the worker with a disability (a worker who has a disability for the work being performed).

5.



The name of the individual who conducts the time study, the name of the worker being evaluated, and the date the time studies are conducted should be entered in the "Observer," "Worker with a Disability," and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

6.



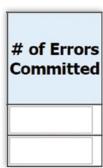
The type of work being performed should be entered in the "Task Performed" cell.

Note: This cell should be the same for each time study completed of both the standard setter and the worker with a disability. You will get an error message when you click "Calculate" if the cells are different.

7.



The observer starts the clock for the worker being evaluated. When the worker indicates that he or she has satisfactorily completed the work, the clock is then stopped and the time is entered in the "Time Elapsed" cells. The "Total" column automatically converts the time into seconds.



After the worker indicates that he or she has satisfactorily completed the work, and the clock has been stopped, the observer counts the number of errors made by the worker and inputs the number in the "# of Errors Committed" cell.

9.

	Worker with a		Task Performed			Time E	lapsed		Average	# of Errors
Observer	Disability	Date	(Should be the same for each time study)	8	Hours	Minutes	Seconds	Total	Time (seconds)	Committed
				1.						
				2.						
				3.						
Add more records										

Repeat steps 7. & 8. for the remaining worker time studies.

If you perform more than three time studies, you can click "Add more records" for each additional time study and a new identical row will appear.

HOW IT CALCULATES: STANDARD SETTER AVERAGE TIME

	Time E	lapsed		
Hours	Minutes	Seconds	Total	Average Time (seconds)
1.	25	36	1536	
2.	22	19	1339	1496.666667
3.	26	55	1615	

(Sum of Standard Setter "Total" ÷ Number of Time Studies Conducted = Standard Setter "Average Time"

$$(1536 + 1339 + 1615) \div 3$$

= 1496.666667

	Time I	Average				
Hours	Minutes	Seconds	Total	Time	# of Errors Committed	
1.	36	22	2182		6	
2.	41	48	2508		3	
3.	39	59	2399	2363.000000	5	

(Sum of Worker "Total") ÷ Number of Time Studies Conducted = Worker "Average Time"

$$(2182 + 2508 + 2399) \div 3$$

= 2363

0.5700380870	
0.0214285714	
0.5915	
9.75	Calculate
\$ 5.77	
	0.021428571¢ 0.5915 0.75

Quantity Rating

(Standard Setter "Average Time" \div Worker "Average Time") \times 0.9

 $(1496.666667 \div 2363) \times 0.9$

= 0.5700380

Quality Rating

[1 \div (Average of "# of Errors Committed)] \times 0.1

 $[1 \div ((6 + 3 + 5) \div 3)] \times 0.1$

 $[1 \div 4.666667] \times 0.1$

= 0.0214285

"Quantity Rating" + "Quality Rating" = "Job Productivity"

0.5700380 + 0.0214285

= 0.5915

"Job Productivity" x "Prevailing Wage" = "Commensurate Wage"

 0.5915×9.75

= 5.77

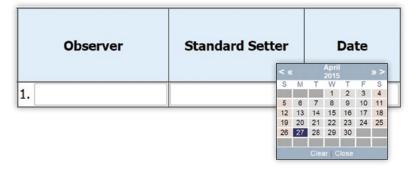
Commensurate Wage = \$5.77

"90/10 FORM, FIXED TIME, VARIABLE UNITS"

The 90/10 calculators assign a 90% rating factor to the quantity of work performed and a 10% rating factor to quality of the work performed by the worker with a disability. This calculator should be utilized when the time studies consist of a fixed amount of time to complete a variable number of units.

Time of the Standard Setter

1.



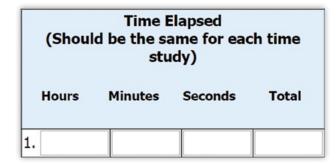
The name of the individual who conducts the time study, the name of the standard setter, and the date the time study is conducted should be entered in the "Observer," "Standard Setter," and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

2.



The type of work being performed should be entered in the "Task Performed" cell.

3.



The observer provides the standard setter with a set amount of time for each time study. That amount of time should be entered in the "Time Elapsed" section.

Note: The amount of time entered should be the same for each time study completed of both the standard setter and the worker with a disability. You will get an error message when you click "Calculate" if the cells are different.

4.



In the given amount of time, the standard setter completes as many units of work possible. When the time expires, the observer counts the number of *fully completed* units and inputs that number in the "Units Completed" cell.

Observer	Standard Setter	Date	Task Performed	Time Elapsed (Should be the same for each time study)				Units Completed	
					Hours	Minutes	Seconds	Total	
				1.					
				2.					
				3.					
Add more records									

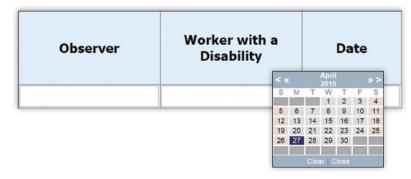
Repeat steps 1. & 3. - 4. for the remaining standard setter time studies.

The Department requires that you complete at least three time studies. See <u>Chapter 64j00</u> of the WHD Field Operations Handbook. If you perform more than three time studies, you can click "Add more records" for each additional time study and a new identical row will appear.

Time of the Worker with a Disability

The employer next conducts time studies of the worker with a disability (a worker who has a disability for the work being performed).

6.

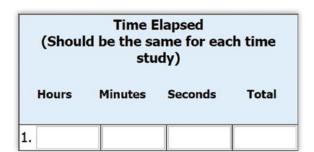


The name of the individual who conducts the time study, the name of the worker being evaluated, and the date that the time studies are conducted should be entered in the "Observer," "Worker with a Disability," and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

7.



The type of work being performed should be entered in the "Task Performed" cell.



The observer provides the worker being evaluated with a set amount of time for each time study. That amount of time should be entered in the "Time Elapsed" section.

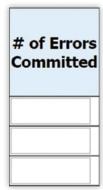
Note: The amount of time entered should be the same for each time study completed of both the standard setter and the worker with a disability. You will get an error message when you click "Calculate" if the cells are different.

9.



In the given amount of time, the worker completes as many units of work possible. When the time expires, the observer counts the number of *fully completed* units and inputs that number in the "Units Completed" cell.

10.



After the worker indicates that he or she has satisfactorily completed the work, and the clock has been stopped, the observer counts the number of errors made by the worker and enters the number in the "# of Errors Committed" cell.

11.

Observer	Worker with a Disability	Date	Task Performed	Time Elapsed (Should be the same for each time study)				Units Completed		# of Errors
				Hour	s Minutes	Seconds	Total		Completed	
				1.						
				2.						
				3.						
Add more records				4						

Repeat steps 6. & 8. – 10. for the remaining worker time studies.

If you perform more than three time studies, you can click "Add more records" for each additional time study and a new identical row will appear.

HOW IT CALCULATES: 90/10 FORM, FIXED TIME, VARIABLE UNITS

(Shou	Time Elapsed (Should be the same for each time study)		Units Completed	Standard Averag	
Hours	Minutes	Seconds	Total	Completed	Oilles
1.	20	1	1200	47	
2.	20		1200	49	
3.	20		1200	44	46.6666666666664

(Sum of Standard Setter "Units Completed" ÷ Number of Time Studies Conducted = "Standard Average Units"

$$(47 + 49 + 44) \div 3$$

= 46.666666666664

Time Elapsed (Should be the same for each time study)		Units Completed	Ww/D Average Units	# of Errors		
Hours	Minutes	Seconds	Total	Completed	Completed	
1.	20		1200	22		5
2.	20		1200	19		3
3.	20		1200	25	22	6

(Sum of Worker "Units Completed") ÷ Number of Time Studies Conducted = "Ww/D Average Units Completed"

$$(22 + 19 + 25) \div 3$$

= 22

 Quantity Rating
 0.4242857142857

 Quality Rating
 0.0214285714285

 Job Productivity
 0.4457

 Prevailing Wage
 10.20

 Commensurate Wage
 \$ 4.55

Quantity Rating

("Ww/D Average Units Completed" ÷ "Standard Average Units") x 0.9

 $(22 \div 46.666666666664) \times 0.9$

= 0.424285714

Quality Rating

[1 ÷ (Average of "# of Errors Committed)] x 0.1

 $[1 \div ((5+3+6) \div 3)] \times 0.1$

 $[1 \div 4.666667] \times 0.1$

= 0.021428571

"Quantity Rating" + "Quality Rating" = "Job Productivity"

0.424285714 + 0.021428571

= 0.4457

"Job Productivity" x "Prevailing Wage" = "Commensurate Wage"

 0.4457×10.20

= 4.55

Commensurate Wage = \$4.55

PIECE RATE CALCULATORS

A piece rate is the wage paid per each completed unit of work (e.g., a task performed or piece produced). When a worker with a disability is to perform a production job, the simplest and most objective method to ensure the payment of commensurate wages is the payment of a piece rate.

If the prevailing wage survey reveals that the prevailing wage is a piece rate, and the employer of the workers with disabilities will be performing the job in the same manner as the survey firm(s), the employer should pay the same piece rate to the worker with a disability. In this situation, there is no need to perform a time study.

If the prevailing wage yielded an hourly prevailing wage rate and the employer of the workers with disabilities prefers to pay a piece rate, a work measurement must be conducted that will yield a piece rate.

A calculated piece rate must include an allowance factor covering personal time, fatigue and delay (PF&D). Normal fatigue prevents all employees, not just those with disabilities, from producing at their most rapid pace throughout the workday. In addition, breaks, cleanup time, and delay time while materials are being restocked or the finished products are removed all reduce the amount a worker can produce. Employers must take this nonproductive time into consideration when determining piece rates used to compute subminimum wages by including a PF&D allowance.

Section 525.12(h)(2)(ii) of the Section 14(c) regulations states that when determining piece rates, an appropriate time must be allowed for personal time, fatigue, and unavoidable delays. Generally, not less than 15% allowances (9 - 10 minutes per hour) should be used in conducting time studies. The Wage and Hour Division will not accept a PF&D allowance that is less than 9 minutes per hour.

A PF&D allowance is required only when establishing piece rates. The regulations do not require that an employer include a PF&D allowance when determining commensurate hourly wages to be paid to workers with disabilities under Section 14(c) of the FLSA.

Five piece rate calculators have been developed to reflect the different mathematical methods to determine a piece rate. The calculators are formatted to calculate a piece rate based on the number of units completed by the standard setter and the prevailing wage established during the prevailing wage survey.

<u>"Fixed Number of Units, PF&D 9 min"</u> requires the standard setter to complete a set number of units, with a varying amount of time spent completing the units. A 9 minute PF&D allowance is incorporated in this calculator.

<u>"Fixed Number of Units, PF&D 10 min"</u> requires the standard setter to complete a set number of units, with a varying amount of time spent completing the units. A 10 minute PF&D allowance is incorporated in this calculator.

"Fixed Time, PF&D 9 min" provides the standard setter with a set amount of time to complete as many units as possible. A 9 minute PF&D allowance is incorporated in this calculator.

"Fixed Time, PF&D 10 min" provides the standard setter with a set amount of time to complete as many units as possible. A 10 minute PF&D allowance is incorporated in this calculator.

<u>"Piece Rate Calculator"</u> allows for the entry of the prevailing wage and the number of units in the standard and calculates the piece rate.

"FIXED NUMBER OF UNITS"

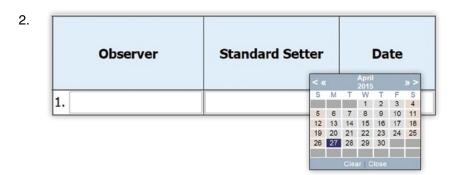
The fixed number of units calculators should be used when the standard setter is asked to complete a set number of units. The time of each time study will vary.

Two calculators for fixed number of units have been developed - Fixed *Number of Units*, *PF&D 9 min and Fixed Number of Units*, *PF&D 10 min*. Both calculators require the same data input and the instructions to fill them in are the same.

After reviewing the instructions, you will be able to jump to the "How it Calculates" section for the calculator you have chosen to use.

1. Task Performed

The type of work being performed should be entered in the "Task Performed" cell.



The name of the individual who conducts the time study, the name of the standard setter, and the date that the time study is conducted should be entered in the "Observer," "Standard Setter," and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

 Number of Units Completed (Should be the same for each time study)				

The standard setter is asked to complete a set number of units. The amount of units completed should be entered in the "Number of Units Completed" cell.

Note: This cell should be the same for each time study completed. You will get an error message when you click "Calculate" if the cells are different.

Time Elapsed								
Hours	Minutes	Seconds	Total					

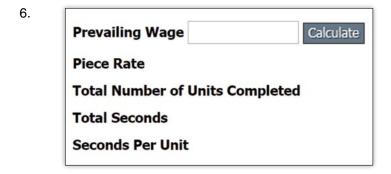
The observer starts the clock for the standard setter. When the worker indicates that he or she has satisfactorily completed the work, the clock is then stopped and the time is entered in the "Time Elapsed" cells. The "Total" column automatically converts the time into seconds.

5.

	Observer Standard Setter		Date	Number of Units Completed (Should be the same for each time study)	Time Elapsed Hours Minutes Seconds Tota			Total	Number of Units in Standard
1.									
2.									
3.									Calculate
I	Add more records								

Repeat steps 2. - 4. for the remaining standard setter time studies and click "Calculate".

The Department requires that you complete at least three time studies. See <u>Chapter 64j00</u> of the WHD Field Operations Handbook. If you perform more than three time studies, you can click "Add more records" for each additional time study under "Observer" and a new identical row will appear.



Input the established prevailing wage in the "Prevailing Wage" cell and click "Calculate".

JUMP TO:

HOW IT CALCULATES: 9 MIN PF&D HOW IT CALCULATES: 10 MIN PF&D

HOW IT CALCULATES: 9 MIN PF&D

A 9 Min PF&D calculates the number of units that would be completed in a 51 minute period.

Sixty minutes in an hour less the 9 minute PF&D allowance equals 51 minutes of productivity or 3,060 seconds.

Number of Unit	Time Elapsed				
Completed (Should the same for each study)	Minutes	Seconds	Total	of Units in Standard	
30	24	3	1443		
30	28	42	1722	Calculate	
30	27	17	1637	57	

Minutes of Productivity ÷ [(Sum of "Total") ÷ (Sum of "Number of Units Completed")] = "Number of Units in Standard"

$$3,060 \div [(1,443 + 1,722 + 1,637) \div (30 + 30 + 30)]$$

$$3,060 \div (4,802 \div 90)$$

 $3,060 \div 53.3556$

= 57.3511

Number of Units in Standard = 57 (Note: Partially completed units are not counted.)



"Prevailing Wage" : "Number of Units in Standard" = "Piece Rate"

 $9.50 \div 57$

= 0.1667

HOW IT CALCULATES: 10 MIN PF&D

A 10 Min PF&D calculates the number of units that would be completed in a 50 minute period.

Sixty minutes in an hour less the 10 minute PF&D allowance equals 50 minutes of productivity or 3,000 seconds.

Number of Units	Time Elapsed				
Completed (Should the same for each t study)	Minutes	Seconds	Total	of Units in Standard	
30	24	3	1443		
30	28	42	1722	Calculate	
30	27	17	1637	56	

Minutes of Productivity ÷ [(Sum of "Total") ÷ (Sum of "Number of Units Completed")] = "Number of Units in Standard"

$$3,000 \div [(1,443 + 1,722 + 1,637) \div (30 + 30 + 30)]$$

 $3,000 \div (4,802 \div 90)$

 $3,000 \div 53.3556$

= 56.2266

Number of Units in Standard = 56 (**Note:** Partially completed units are not counted.)

Prevailing Wage 9.50	tulate
Piece Rate	\$0.1697
Total Number of Units Completed	90
Total Seconds	4802
Seconds Per Unit	53.35556

"Prevailing Wage" : "Number of Units in Standard" = "Piece Rate"

 $9.50 \div 56$

= 0.1697

"FIXED TIME"

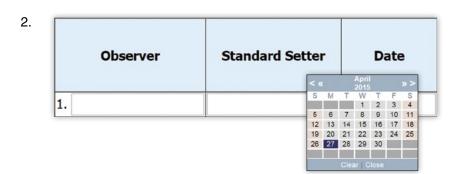
The fixed time calculators should be used when the standard setter is given a set amount of time to complete as many units as possible.

Two calculators for fixed time have been developed - *Fixed Time*, *PF&D 9 min and Fixed Time*, *PF&D 10 min*. Both calculators require the same data input and the instructions to fill them in are the same.

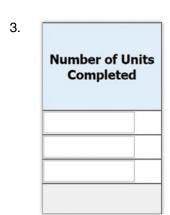
After reviewing the instructions, you will be able to jump to the "How it Calculates" section for the calculator you have chosen to use.

1. Task Performed

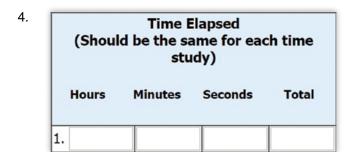
The type of work being performed should be input in the "Task Performed" cell.



The name of the individual who conducts the time study, the name of the standard setter, and the date the time study is conducted should be entered in the "Observer," "Standard Setter," and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.



The number of units completed in the set amount of time should be entered in the "Number of Units Completed" cell.



The standard setter is given a set amount of time to complete as many units as possible. The amount of time should be entered in the "Time Elapsed" cells.

Note: These cells should be the same for each time study completed. You will get an error message when you click "Calculate" if the cells are different.

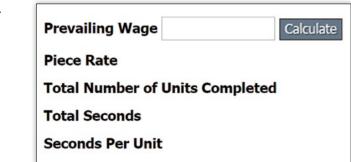
5.

Observer	Standard Setter	Date	Number of Units Completed	Time Elapsed (Should be the same for each time study) Hours Minutes Seconds Total		Number of Units in Standard	
1.							
2.							
3.							Calculate
Add more records							

Repeat steps 2. - 4. for the remaining standard setter time studies and click "Calculate".

The Department requires that you complete at least three time studies. See <u>Chapter 64j00</u> of the WHD Field Operations Handbook. If you perform more than three time studies, you can click "Add more records" for each additional time study under "Observer" and a new identical row will appear.

6.



Input the established prevailing wage in the "Prevailing Wage" cell and click "Calculate".

JUMP TO:

HOW IT CALCULATES: 9 MIN PF&D
HOW IT CALCULATES: 10 MIN PF&D

HOW IT CALCULATES: 9 MIN PF&D

A 9 Min PF&D calculates the number of units that would be completed in a 51 minute period.

Sixty minutes in an hour less the 9 minute PF&D allowance equals 51 minutes of productivity or 3,060 seconds.

Number of Units	Time Ela	psed (Sho each tim	Number of Units		
Completed	Hours	Minutes	Seconds	Total	in Standard
33		20		1200	
37		20		1200	Calculate
40		20		1200	93

Minutes of Productivity ÷ [(Sum of "Total") ÷ (Sum of "Number of Units Completed")] = "Number of Units in Standard"

$$3,060 \div [(1,200 + 1,200 + 1,200) \div (33 + 37 + 40)]$$

$$3,060 \div (3,600 \div 110)$$

 $3,060 \div 32.7273$

= 93.5000

Number of Units in Standard = 93 (**Note:** Partially completed units are not counted.)

Prevailing Wage 9.75 Calculate	
Piece Rate	\$0.1049
Total Number of Units Completed	110
Total Seconds	3600
Seconds Per Unit	32.72727

"Prevailing Wage" : "Number of Units in Standard" = "Piece Rate"

 $9.75 \div 93$

= 0.1049

HOW IT CALCULATES: 10 MIN PF&D

A 10 Min PF&D calculates the number of units that would be completed in a 50 minute period.

Sixty minutes in an hour less the 10 minute PF&D allowance equals 50 minutes of productivity or 3,000 seconds.

Number of Units	Time Elapsed (Should be the same for each time study)			Number of Units	
Completed	Hours	Minutes	Seconds	Total	in Standard
33		20		1200	Calculate 91
37		20		1200	
40		20		1200	

Minutes of Productivity ÷ [(Sum of "Total") ÷ (Sum of "Number of Units Completed")] = "Number of Units in Standard"

$$3,000 \div [(1,200 + 1,200 + 1,200) \div (33 + 37 + 40)]$$

$$3,000 \div (3,600 \div 110)$$

 $3,000 \div 32.7273$

= 91.6666

Number of Units in Standard = 91 (Note: Partially completed units are not counted.)

Prevailing Wage	9.75	Calculate	
Piece Rate			\$0.1072
Total Number of Units Completed			110
Total Seconds			3600
Seconds Per Uni	t		32.72727

"Prevailing Wage" : "Number of Units in Standard" = "Piece Rate"

 $9.75 \div 91$

= 0.1072

"PIECE RATE"

If you have previously determined both the prevailing wage and the number of units in the standard, the piece rate calculator will calculate the correct piece rate.



The type of work being performed and the date the time study is conducted should be entered in the "Task" and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.



The established prevailing wage should be entered in the "Prevailing Wage" cell.



The number of units in the standard should be entered in the "Units in Standard" cell.

HOW IT CALCULATES: PIECE RATE

Units in Standard	Piece Rate
76	Calculate \$0.1349
	Units in Standard 76

"Prevailing Wage" ÷ "Number of Units in Standard" = "Piece Rate"

 $10.25 \div 76$

= 0.1349

NEW MINIMUM WAGE CALCULATOR

An increase in the minimum wage will most likely affect prevailing wage rates, even if a prevailing wage rate is higher than the new minimum wage.

After a minimum wage increase, rather than conduct an additional prevailing wage survey, an employer may elect to make a blanket adjustment and raise prevailing wage rates by the percentage of increase in the minimum wage. Commensurate wage rates paid to workers under a Section 14(c) certificate should be adjusted accordingly. If an adjustment is required, the new commensurate wage rate must be reflected in the first pay period following the review.

"NEW PREVAILING WAGE CALCULATOR (BASED ON MINIMUM WAGE RATE CHANGE)"



The type of work being performed and the date the time study is conducted should be entered in the "Task" and "Date" cells. In the "Date" cell, an auto-fill calendar will appear when you click the cell, and you will be able to choose the correct date.

2.	Old Minimum Wage	New Minimum Wage

The previous minimum wage and the new minimum wage should be entered in the "Old Minimum Wage" and "New Minimum Wage" cells.

3.	Old Prevailing Wage

The previous prevailing wage should be entered in the "Old Prevailing Wage" cell.

HOW IT CALCULATES: NEW PREVAILING WAGE CALCULATOR (BASED ON MINIMUM WAGE RATE CHANGE)

This calculator calculates the percentage increase in the minimum wage and applies that percentage increase to the prevailing wage.

Old Minimum Wago	New Minimum Wage		
7.25	10.10		
Old Prevailing Wag	e New Prevailing Wage		
12.15	\$16.93 Calculate		

("New Minimum Wage" – "Old Minimum Wage") \div "Old Minimum Wage" = Minimum Wage Percent Increase $(10.10-7.25)\div7.25$

= 0.3932

 $(Minimum\ Wage\ Percent\ Increase\ \times\ "Old\ Prevailing\ Wage")\ +\ "Old\ Prevailing\ Wage"\ =\ "New\ Prevailing\ Wage"$

 $(0.3932 \times 12.15) + 12.15$

= 16.93

New Prevailing Wage = \$16.93



WAGE AND HOUR DIVISION

UNITED STATES DEPARTMENT OF LABOR